

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A fluid level control pumping system, comprising:
a pumping unit disposed within a well, the pumping unit having an inlet operable to receive a fluid to be pumped from the well; and
a valve coupled to the pumping unit, the valve operable to receive pumped fluid from an outlet of the pumping unit, and wherein, in response to a decrease in fluid level within the well, movement of the valve relative to the pumping unit causes the pumped fluid to be recirculated from the outlet back ~~into to enter~~ the pumping unit between the ~~inlet outlet~~ and the ~~outlet inlet~~ of the pumping unit.
2. (Previously presented) The system of Claim 1, wherein the pumping unit comprises a progressive cavity pump.
3. (Original) The system of Claim 1, wherein the valve comprises a floating valve.
4. (Original) The system of Claim 1, further comprising a locking system operable to releasably secure the valve in a predetermined location relative to the pumping unit.
5. (Previously presented) The system of Claim 1, further comprising a check valve disposed proximate the inlet, the check valve operable to prevent passage of the recirculated fluid through the inlet.
6. (Original) The system of Claim 1, further comprising a plurality of stops disposed proximate the valve, the stops operable to limit movement of the valve to predetermined locations relative to the pumping unit.

7. (Currently amended) A fluid level control pumping system, comprising:
a progressive cavity pump disposed within a well, the pump having a stator/rotor portion for pumping a fluid in the well from a first location to a second location, the stator/rotor portion having an inlet and an outlet, and the pump also having a housing, the housing having an inlet and an outlet; and

a valve coupled to the pump, wherein, in response to a change in fluid level within the well, movement of the valve relative to the pump causes the pumped fluid to be recirculated from the outlet of the stator/rotor portion back into to enter the pump between the inlet of the housing and the outlet and the inlet of the stator/rotor portion pump.

8. (Original) The system of Claim 7, wherein the valve comprises a floating valve.

9. (Original) The system of Claim 7, further comprising a locking system operable to releasably secure the valve in a predetermined location relative to the pump.

10. (Currently amended) The system of Claim 7, further comprising a check valve disposed proximate the inlet of the housing, the check valve operable to prevent passage of the recirculated fluid through the inlet of the housing.

11. (Original) The system of Claim 7, further comprising a plurality of stops disposed proximate the valve, the stops operable to limit movement of the valve to predetermined locations relative to the pump.

12. (Currently amended) A method for fluid level control pumping, comprising:
providing a pump disposed within a well, the pump having a housing with an outlet and an inlet operable to receive fluid to be pumped from the well;
providing a valve coupled to the pump, the valve operable to receive the fluid from the outlet of the pump; and
recirculating the fluid from the outlet back into to enter the pump between the inlet outlet and the outlet inlet via the valve in response to a decrease in a fluid level within the well.

13. (Previously presented) The method of Claim 12, wherein the pumping comprises a progressive cavity pump.

14. (Original) The method of Claim 12, wherein recirculating comprises aligning a passage of the valve with a port of the pump, the port disposed proximate the outlet.

15. (Original) The method of Claim 12, wherein providing the valve comprises providing a floating valve, the floating valve operable to move relative to the pump in response to a change in the fluid level within the well.

16. (Original) The method of Claim 15, further comprising providing a plurality of stops disposed proximate the valve, the stops operable to restrict movement of the valve to predetermined locations relative to the pump.

17. (Original) The method of Claim 12, wherein recirculating comprises recirculating fluid to substantially prevent operation of the pump absent fluid lubrication.

18. (Previously presented) The method of Claim 12, wherein providing the valve comprises providing the valve slidably coupled to the pump, and further comprising providing a locking system operable to releasably secure the valve at a predetermined location relative to the pump.

19. (Currently amended) A fluid control pumping system, comprising:
a progressive cavity pump disposed within a well, the pump having a passage extending to a suction section end of the pumping unit;
a pressure sensor coupled to the passage and operable to determine a fluid pressure within the passage; and
a controller coupled to the pump and operable to regulate a fluid lubrication of the pumping unit in response to the fluid pressure.

20. (Original) The system of Claim 19, wherein the controller is operable to regulate the fluid lubrication of the pump by regulating a rotational velocity of the pump.

21. (Original) The system of Claim 19, wherein the fluid pressure within the passage corresponds to a fluid depth within the well.

22. (Original) The system of Claim 19, wherein the pump comprises:
a stator; and

a rotor disposed within the stator, the rotor operable to rotate relative to the stator to pump a fluid within the well from a first location to a second location, and wherein the passage comprises an internal passage of the rotor.

23. (Original) The system of Claim 19, wherein the controller is operable to regulate the fluid lubrication of the pump by regulating a flow rate of the pump to maintain a substantially constant depth of a fluid within the well.

24. (Currently amended) A method for fluid control pumping, comprising:
providing a progressive cavity pump disposed within a well, the pump having a passage extending to a suction section end of the pump;
determining a fluid pressure within the passage; and
automatically regulating a fluid lubrication of the pump in response to the fluid pressure.

25. (Original) The method of Claim 24, wherein regulating the fluid lubrication comprises regulating a rotational velocity of the pump.

26. (Original) The method of Claim 24, wherein determining the fluid pressure within the passage comprises determining a fluid depth within the well.

27. (Original) The method of Claim 24, wherein the pump comprises a stator and a rotor, the rotor disposed within the stator, the rotor operable to rotate relative to the stator to

pump a fluid within the well from a first location to a second location, and wherein the passage comprises an internal passage of the rotor.

28. (Original) The method of Claim 24, wherein regulating the fluid lubrication comprises regulating a flow rate of the pump to maintain a substantially constant fluid level within the well.

29. (Original) The method of Claim 24, wherein regulating the fluid lubrication comprises increasing the rotational velocity of the pump in response to an increase in the fluid pressure.

30. (Original) The method of Claim 24, wherein regulating the fluid lubrication comprises decreasing the rotational velocity of the pump in response to a decrease in the fluid pressure.

31. (Original) The method of Claim 24, wherein regulating comprises regulating the rotational velocity of the pump to substantially prevent the pump from rotating without fluid lubrication.

32. (Currently amended) A fluid control pumping system, comprising:
a pumping unit disposed within a well, the pumping unit having a first passage extending to a suction end of the pumping unit for transmission of pumped fluid and a second passage extending to a suction end of the pumping unit;

a pressure sensor operable to determine a fluid pressure associated with the well by measuring at least one parameter associated with the second passage; and

a controller coupled to the pumping unit and operable to decrease a flow rate of the pumping unit to a decreased flow rate in response to a decrease in the fluid pressure, and operable to increase a flow rate of the pumping unit in response to an increase in the fluid pressure.

33. (Previously presented) The system of Claim 32, wherein the pumping unit comprises a progressive cavity pump.

34. (Previously presented) The system of Claim 33, wherein the controller is operable to regulate the flow rate of the pumping unit by regulating a rotational velocity of the progressive cavity pump.

35. (Original) The system of Claim 34, wherein the controller is operable to regulate the flow rate of the pumping unit to maintain a substantially constant depth of a fluid within the well.

36. (Currently amended) A method for fluid control pumping, comprising:

providing a pumping unit disposed within a well, the pumping unit having a first passage extending to a suction end of the pumping unit for transmission of pumped fluid and a second passage extending to a suction end of the pumping unit;

determining a fluid pressure associated with the well by measuring at least one parameter associated with the second passage;

decreasing a flow rate of the pumping unit to a decreased flow rate in response to a decrease in the fluid pressure; and

increasing a flow rate of the pumping unit in response to an increase in the fluid pressure.

37. (Previously presented) The method of Claim 36, wherein providing the pumping unit comprises providing a progressive cavity pump.

38. (Previously presented) The method of Claim 37, wherein the flow rate is changed by changing the rotational velocity of the progressive cavity pump.

39. (Original) The method of Claim 36, wherein the flow rate of the pumping unit is regulated to maintain a substantially constant fluid level within the well.

40. (Previously presented) The system of Claim 34, wherein the controller is further operable to decrease a flow rate of the pumping unit to cease flow in response to a decrease in the fluid pressure.

41. (Previously presented) The system of Claim 36, further comprising ceasing a flow rate of the pumping unit in response to a decrease in the fluid pressure.

42. (Currently amended) A fluid control pumping system, comprising:
a pumping unit disposed within a well, the pumping unit having a first passage extending to a suction end of the pumping unit for transmission of pumped fluid and a second passage extending to a suction end of the pumping unit;
a pressure sensor operable to determine a fluid pressure associated with the well by measuring at least one parameter associated with the second passage; and
a controller coupled to the pumping unit and operable to maintain a substantially constant depth of a fluid within the well by decreasing a flow rate of the pumping unit in response to a decrease in the fluid pressure and increasing a flow rate of the pumping unit in response to an increase in the fluid pressure.

43. (Currently amended) A method for fluid control pumping, comprising:
providing a pumping unit disposed within a well, the pumping unit having a first passage extending to a suction end of the pumping unit for transmission of pumped fluid and a second passage extending to a suction end of the pumping unit;
determining a fluid pressure associated with the well by measuring at least one parameter associated with the second passage;
regulating the flow rate of the pumping unit to maintain a substantially constant fluid level within the well by decreasing a flow rate of the pumping unit in response to a decrease in the fluid pressure and increasing a flow rate of the pumping unit in response to an increase in the fluid pressure.